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ABSTRACT

In October 1969 the Ontario Council on Graduate Studies appointed a committee to study the operation of the Ontario Graduate Fellowship Program to date with a view to determining whether any changes should be recommended in its objectives, method of operation, scale and relation to other programs. It was found that the program has been strikingly successful in producing university and college staff for Ontario and Canada and also in providing the means to train in Ontario some of those specialists needed in an increasingly complex society. It is recommended that the competition for the program be modified, specifically by awarding the bulk of the fellowships in a province-wide procedure with the awards portable within Ontario rather than tied to a specific university. For graduate students whose academic ability and promise do not justify scholarship support, a grant/loan scheme coupled with a limited opportunity for employment is recommended. In addition, it is recommended that awards through the program be increased from $750 a term to $800 a term in recognition of the increasing cost of living. (HS)

ED 069261

REPORT TO THE ONTARIO COUNCIL ON GRADUATE STUDIES OF THE COMMITTEE ON STUDENT FINANCIAL SUPPORT

AUGUST 1970

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TABLE OF CONTENTS

		PAGE
	INTRODUCTION AND SUMMARY	i
I.	AN EVALUATION OF THE POGF PROGRAM	1
	A. The Production of University Teachers	1
	B. The Growth of the Graduate Schools	4
II.	RECOMMENDED NEW ARRANGEMENTS	8
	A. Basic Principles of Graduate Student Support	8
	B. Scholarship Support for Category One	15
	C. Scholarship Support for Category Two	17
	D. Limits on Total Income	22
	E. A Loan/Grant Scheme for Category Three	26
	F. The Support of Foreign Graduate Students	30
	G. Students in Professional Studies	34
	H. Future Modifications	35
	I. Cost Estimates	36
III.	A NOTE ON THE OPPORTUNITY BANK CONCEPT	39
	A. Contingent Repayment Schemes	39
	B. Comments	40
IV.	APPENDICES	46
	A. Excerpt from the Spinks Commission Report, 1966	46
	B. Major Scholarships available to Ontario Graduate Students.	52

INTRODUCTION AND SUMMARY

In October 1969, the Committee of Presidents of the Universities of Ontario accepted a recommendation that the Ontario Council on Graduate Studies undertake "a full study of the operation of the Ontario Graduate Fellowship Program to date with a view to determining whether any changes should be recommended in its objectives, method of operation, scale and relation to other programmes".

This rather broad charge naturally involved consideration of almost all other aspects of graduate student income, both present and as foreseen. It was therefore fortunate that a strong and representative committee could be established, prepared to work in a concentrated way over a period of a few months. The committee consisted of:

Dr. H. W. Baldwin, Associate Professor of Chemistry, Assistant Dean of Graduate Studies, University of Western Ontario

Mr. John Bosley, Graduate Student in Environmental Studies, York University

Dr. R. D. Fraser, Associate Professor of Economics, Queen's University

Dr. Robert A. Greene, Professor of English, University of Toronto

Dr. M. A. Preston, Professor of Physics and of Applied Mathematics, Dean of Graduate Studies, McMaster University, and Chairman of O.C.G.S.

Dr. J. Ruptash, Professor of Engineering, Dean of Graduate Studies, Carleton University, and Vice-Chairman of O.C.G.S.

Mr. Warren Troop, Graduate Student in Psychology, Carleton University

Professor Preston chaired the committee and the secretary was Mr. E. B. Heaven, Executive Assistant to the Dean of Graduate Studies, McMaster University.

The committee appropriately held its first meeting at Queen's University on March 6 on the occasion of a one day symposium organized by Queen's graduate students to deal with problems of graduate student support and to hear inter alia a discussion with Mr. Benson on implications of the White Paper on Tax Reform. The committee held ten further full day meetings in Toronto.

The committee had available to it a number of earlier reports, documentation on current and proposed programs, a very considerable body of statistics on post graduation employment, enrolment pattern, and projection and support levels and the varied experience of its members, each of whom was deeply involved with graduate student financing, each representing a somewhat different viewpoint -- scientist or humanist, professor or student or dean.

The committee did not begin with a common opinion on many questions, but from the vigorous interchange of views made possible by several full-day meetings a position emerged which has the enthusiastic support of all the members. This position is expanded in the main body of our report in phrases carefully formulated at our meetings but it may be useful to summarize it briefly in this introduction.

We find that the Province of Ontario Graduate Fellowship (POGF) program has been strikingly successful in producing university and college staff for Ontario and Canada and also in providing the means to

train in Ontario some of those specialists needed in our increasingly complex society. Incidentally, the committee is inclined to believe that Canada is still a net importer of holders of graduate degrees. The committee reached the conclusion that it will be extremely important to continue the POGF program but with certain modifications; it seems desirable to reduce the emphasis on a future career in university or college teaching and at the same time to give greater weight to the quality of scholarship of applicants.

The committee adheres firmly to the generally accepted view that equity demands roughly equivalent financial support for almost all graduate students (but with certain significant exceptions) with roughly comparable academic achievement and promise. We note that to the extent this now exists -- and it exists very imperfectly -- its presence is due in large measure to ingenious combinations of various sources of financial aid. The committee does not wish to be misunderstood as being overly generous in its recommendation that the majority of graduate students be supported financially. We do not make this recommendation in a system in which there are no controls on the numbers in the graduate schools. On the contrary, we note that there are now substantial financial controls on enrolment and we look forward to the development of a more detailed growth plan for Ontario graduate schools in which the academic factors appropriate to each discipline have been carefully weighed. In the context of such a plan -- both the present rough but effective controls and the more refined future position -- we believe our recommendations, or something very close to them, to be

essential. They suggest academic factors as the criteria for enrolment in graduate schools and for determination of support levels.

The basic feature of our proposal is to recommend scholarship support for "all" students (the word "all" is carefully restricted so that the scheme is NOT financially open-ended) who achieve academic standing of a certain level. This scholarship support is of such an amount that essentially all students will welcome the opportunity to earn extra money as teaching assistants. We propose the imposition of limits on the rates of pay and number of hours work permitted, to prevent the two possible abuses of such payments, viz exploitation of the student on one hand and implicit additional scholarship support on the other.

We recommend that the competition for POGF's be modified in a number of ways, perhaps the most significant being the proposal to award the bulk of the fellowships (80%) in a province-wide procedure similar to that employed by NRC and Canada Council and with those awards portable within Ontario rather than tied to the specific university. Since there are also important functions served by university-awarded fellowships, we propose that the remainder of the awards be distributed to the universities on a quota basis.

For graduate students whose academic ability and promise do not justify scholarship support, we recommend a grant/loan scheme coupled with a limited opportunity for employment.

The committee believes it is echoing educational doctrine of clearly demonstrated validity in maintaining that the vitality and

quality of a graduate school requires the presence of a proportion of foreign students. We believe that a ten percent foreign enrolment is a minimum for this purpose. (The figure could be higher but the fact that Canada is a country which encourages immigration provides in itself for some cosmopolitanism in the student body.) Although there is also a quite different obligation that Canada as a developed nation may have to students from underdeveloped lands, for the most part the foreign students should be of high academic quality in order to provide the leaven and contacts which are so important to the quality of our own undertakings. The committee demonstrates that if all scholarship and fellowship programs (federal and POGF) were to contain a 15% foreign quota, the graduate schools could have almost 10% foreign enrolment. We consider this a minimum figure and strongly recommend its adoption.

We recommend an increase in values of POGF's from $750 a term to $800 a term, in recognition of the increasing cost of living and the likelihood that federal scholarships will be increased in value. We have made no provision for the proposed incidence of income tax on scholarships. If this is introduced, it will almost certainly require modifications in the amounts of fellowships.

We have estimated the cost if our complete proposals, (including the increase in value and the introduction of prestige awards for M.A. students) had been in effect in 1969-70. The figure is about $8.5 million. This should not be compared directly with the $6 million allotted in the POGF program for 1969-70. Rather one should compare

the total amount of provincial money used for graduate student support, either through the POGF program or through teaching assistantships. The committee believes its recommendations, clearly separating these components, make a much improved and more rational technique for support. Figures of total expenditure on teaching assistantships are difficult to obtain, but the committee believes that adoption of its proposals would not represent a significant increase in overall provincial graduate student support.

Present major scholarship programs are briefly outlined in Appendix B.

Our recommendations are given seriatim in Appendix C.

In Section III of our report, we discuss the opportunity bank concept, to which we devoted a considerable amount of careful study. We do not, of course, comment on its applicability to the undergraduate sphere, where some of us see virtues in it, but we come to the conclusion, which we hope we convincingly demonstrate, that it would be not only inappropriate but distinctly dangerous at the graduate level.

The report is respectfully submitted to the O.C.G.S.

M.A. Preston

Chairman

12 August 1970.

This document is the version of the report after amendment and approval by the O.C.G.S. It is now transmitted to CPUO.

September 28, 1970.

I. AN EVALUATION OF THE POGF PROGRAM

Members of the committee were unanimous in the judgement that the POGF program has succeeded substantially both in its professed purpose of producing teachers for Ontario's post-secondary institutions and also in developing Ontario's graduate schools. As a result of the substantial growth of the graduate schools it is not only the institutions of higher learning which have benefited, but also many other sectors of Canadian society such as industry, government and community-based social services. The committee's judgement that without the POGF program the level of these public benefits would have been substantially less is based on an analysis of available statistics which are summarized under two headings (A) the production of university teachers, and (B) the growth of the graduate schools.

A. THE PRODUCTION OF UNIVERSITY TEACHERS

A document entitled Ph.D. Survey 1964-1969 submitted to the Committee of Presidents of the Ontario universities in May 1970 shows the present employment of Ph.D. graduates from Ontario universities during the years 1964 to 1969.

We examine first the present employment of all Canadian citizens and landed immigrants who graduated with Ph.D.'s. There were 1152 such persons, and the present occupations of 1030 were made known to those conducting the study. There is no precise separation possible between those in disciplines eligible for POGF's and others, but probably not

more than 50 or 60 would be in disciplines ineligible for POGF support. We include students in science and engineering, only a small fraction of whom could have held POGF's. We noted that of the 1030 graduates 772 (or 76%) are employed in Canada, 608 of the 1030 (or 59%) are employed as university teachers, and 364 (or 35%) are employed as university teachers in Ontario.

Since these figures include science and engineering graduates as well as those in humanities and social sciences the percentage of Ph.D. graduates in university teaching is remarkably high. Only a small proportion of the students in pure and applied science can hold POGF's in any one year (664 POGF's in a total enrolment of 3431 in 1969-70), and science and engineering graduates are much more likely to find positions in industry, government and research. When we eliminate science and engineering and look only at the humanities and social sciences, which have received 80% of the POGF's, we find that the percentages in university teaching are even more striking.

Of 164 Ph.D. graduates* in humanities 157 (or 96%) are employed as university teachers: 116 (or 71%) are employed as university teachers in Canada and 96 (or 58%) are employed in Ontario universities and colleges.

Of 207 Ph.D. graduates** in social sciences 151 (or 73%) are employed as university teachers, 117 (or 56%) are employed as university teachers in Canada, and 85 (or 41%) are employed in Ontario universities and colleges.

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* of whom 70% are Canadian or landed immigrant

** of whom 84% are Canadian or landed immigrant

Examining the combined totals for humanities and social sciences we note that of 371 Ph.D. graduates, 235 (or 63%) are teaching in Canadian universities and 181 (or 49%) are teaching in Ontario universities and colleges.

Since it has been the POGF program which has enabled the Ontario universities to produce the Ph.D. graduates in humanities and social sciences, the results of the Ph.D. Survey substantiate the Committee's judgement that the POGF program has been eminently successful in terms of its stated objective "to attract large numbers of men and women to the profession of university or college teaching". Of course, besides these graduates, the POGF program during these years has supported a large number of students still enrolled in Ph.D. programs in the province, another group have completed Master's degrees and are employed in colleges in Ontario, and still others, after completing master's degrees here have engaged in further study outside the province, but have returned, or are likely to do so, to take up employment in Ontario or elsewhere in Canada.

Since in any one year over half of the students in humanities and social sciences have held POGF's it is certain that considerably more than half of those graduating with Ph.D.'s have held POGF's at some time or other. And if the POGF's had not been available the proportion of those going into university teaching would correspondingly have been reduced by more than one half.

The results of the Ph.D. survey also indicate that while the POGF program has produced a significant number of teachers for Ontario universities the demand has exceeded the supply. Ontario, not unlike the rest of Canada, is still not producing an equivalent number of Ph.D.'s to

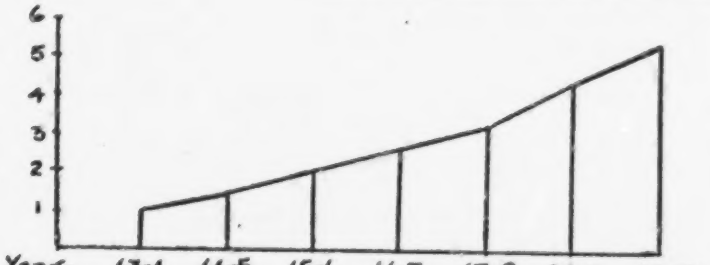
those that are employed in Ontario. It is academically undesirable that all the Ph.D.'s produced in Ontario remain in the province, but in the view of this committee it is desirable that a balance be struck between those imported and those exported. The POGF program has contributed significantly towards the attainment of the balance between exported and imported Ph.D.'s, but there is still obviously a need for the production of Ontario-trained Ph.D.'s via the POGF program for some years to come.

B. THE GROWTH OF THE ONTARIO GRADUATE SCHOOLS

That the POGF program has contributed to the rapid growth of the Ontario graduate schools can be seen in the fact that prior to the introduction of the POGF program in 1962-3 the full-time graduate enrolment had remained fairly stable at approximately 3000 for four years. Since then the annual rate of growth of the graduate schools has borne a direct relationship (although conditioned by a lag factor) to the amount of money allocated year by year by the Province to the program, as the following comparative charts indicate:

Millions of Dollars

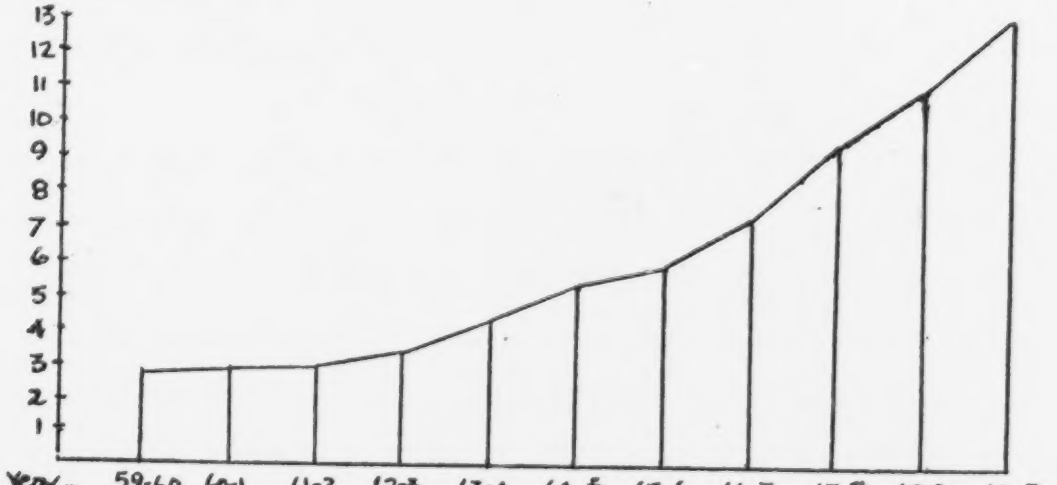
THE POGF PROGRAM



Year-	63-4	64-5	65-6	66-7	67-8	68-9	69-70
No. of awards-	782	1149	1572	1829	2166	2353	2825

Thousands of Full-Time Students

GRADUATE ENROLMENT



The POGF program has contributed significantly to the increase in enrolment in humanities and social sciences. In 1964 there were only 1500 full-time Canadian citizens and landed immigrants doing graduate work in humanities and social sciences, as compared to 2000 students in pure and applied science. In 1969 the numbers in humanities and social sciences exceeded those in pure and applied science by 1000 (4484 in humanities and social science, 3431 in pure and applied science). Clearly the POGF program has encouraged graduate studies in the humanities and social sciences, and it has filled an essential role in providing an award at the M.A. level where federal scholarships have not been available. The availability of POGF's at the M.A. level has contributed to the development of doctoral programmes in humanities and social sciences in the Ontario universities, so that now an increasing proportion of Ontario students who wish to pursue doctoral work remain in Ontario. Each year, of the total number of Ontarians holding Canada Council Fellowships, the percentage of those remaining in Ontario for doctoral work increases. In 1969-70, of the 1083 Ontarians holding Canada Council Fellowships for the first time, 575 chose to remain in Ontario. For 1970-71, 637 out of 1138 will study in Ontario. Canada Council reports that percentages of award winners studying in Canada have increased from 30% in 1966-67 to 46% in 1968-69, 50% in 1969-70, and 53% in 1970-71. As far as Ontario is concerned the increase in the number of doctoral students in humanities and social sciences can be directly attributed to the POGF program.

The effect of the POGF program on graduate enrolment can be shown by taking the most recent academic year, 1969-70, for which statistics

are available. Of the 4484 full-time Canadian citizens or landed immigrants doing graduate work in humanities and social sciences almost one half (2161) were supported on POGF's. And in the pure and applied sciences almost one fifth (or 664 of 3431) were supported on POGF's. Of a total full-time Canadian enrolment of 7915 in both Arts and Science, 2825 (or almost one third) received support from the POGF program. It is clear that without the program one third of the Ontario students who did graduate work in 1969-70 would not have had the opportunity for advanced study.

It is because the POGF program has made such a significant contribution to graduate work in the Ontario universities and has produced many university teachers and other trained specialists needed by society, that we have recommended its incorporation into the new arrangements for graduate student support in section II of this report. Indeed, the POGF program, with some slight modifications, forms the essential core of our proposals.

II RECOMMENDED NEW ARRANGEMENTS

The Committee has given very careful consideration to the development of a scheme of graduate student support appropriate for Ontario for at least the next five to ten years. In doing so, we have attempted to proceed from grounds of basic principles and objectives, but constantly tempering our planning by a consideration of financial constraints. We have constructed models to estimate the costs of our proposals, and these are included at the end of this section of the report. In general, we have in mind mostly those disciplines and programs now eligible for POGF support.

A BASIC PRINCIPLES OF GRADUATE STUDENTS SUPPORT

1. That the attainment of the level of scholastic performance sufficient for admission to graduate studies in an Ontario university justifies some financial support to each student engaged in full-time studies. Some programs leading to professional degrees may be excluded for pragmatic reasons. This does not imply a financially open-ended program. We assume that either, as now, the money made available each year in the POGF program and similar programs will effectively control the enrolment in the Ontario graduate schools, or, hopefully, the amount of money assigned will be determined by the enrolment planned for in an agreed pattern of graduate development for the province.

In making this recommendation we are in agreement with earlier studies on graduate student support which have led to the conclusion that "all" graduate students should have some fellowship (non-service) support, coupled with opportunities to earn limited amounts as demonstrators or teaching assistants. For example, one might mention the Laskin Report on "Graduate Studies in the University of Toronto" (1964-65), the "Report of the Task Force on Fellowships

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and Traineeships" of the Federal Interagency Committee on Education of the Department of Health, Education and Welfare of the United States (1968), "Education at Berkeley", Regents of the University of California, Berkeley 1966. "Financing Higher Education", Report of the Bladen Commission, AUCC, 1965, (Chapter V), "Development of Graduate Programmes in Ontario Universities", Report of the Spinks Commission, 1966 (Chapter 5). Yet when one examines these studies in detail one finds that the proposition that "all" students should be supported is a generalization with significant qualifications. Indeed, there are students with no support and there are variations in the levels of support. These distinctions relate to a student's academic competence, the number of his dependents, his field of study, and various other factors.

Most importantly, the general proposition of adequate support for all is usually made in the context of an assumption -- stated or unstated -- that there exists a mechanism to prevent the support program from being financially open-ended. In every system the economic rewards of competitive careers will exert some influence on the numbers of qualified students who are interested in graduate work. In addition, there may be more direct controls; as for example in the United Kingdom where there is an agreed number of graduate students for each department at each university, or enrolment may be limited by the university by a raising of the admission standards. Certainly if there were not such controls the expense measured in both monetary and human terms would be much more than society could sustain.

It is assumed in this report that graduate work in the Province will develop in the context of rational planning. Some steps in this

direction have already been taken, if one considers the follow-up to the Spinks report and the more recent proposals for a standing committee of the OCGS and for a sub-committee on academic planning of CPUO. Although the techniques for achieving an optimal number and disciplinary distribution of graduate students are only partially refined, it is our view that when such a goal has been achieved all graduate students should be supported at appropriate levels. As we move towards more fully planned development, we must have a graduate fellowship policy designed to work effectively both in the current situation and in the evolving one.

We believe that graduate work of high caliber benefits the society in which it takes place. It is not the primary purpose of this report to argue this point, which has been frequently and ably made. We reproduce as Appendix A a relevant passage from the report of the Spinks Commission. We would ourselves stress that if society is to derive in full measure the cultural, economic and research benefits which flow from graduate work, it is necessary that an equality of opportunity for graduate work must exist so that the best minds may be found amongst the graduate students.

In the absence of adequate public support of graduate work, many potentially valuable members of society, who have reached the age of financial independence, will not choose to enter graduate school at the cost of an immediate financial sacrifice and in the expectation of dubious monetary returns in the future. Without public support the opportunities for graduate study would become more a matter of a student's financial status than of his academic ability, and would result in the

exclusion from the graduate schools of many able students.

How should the optimal distribution of graduate students be determined? One might contemplate a good deal of rather detailed analysis leading to a plan for development of each discipline's graduate program in the Ontario universities. Although most persons are sceptical about the possibility of absolute precision in such an analysis and they fear that a very detailed plan would be Orwellian in character and would restrict innovation, they simultaneously realize that wise and cooperative planning is essential for the further healthy growth of our graduate schools. However, such detailed discipline-by-discipline assessment and planning on a general scale is still a fairly long time in the future. In the meantime, our graduate enrolment in Ontario is determined by several diverse factors: the number of NRC, MRC and Canada Council scholarships, the dollar amount set aside for POGF's, the amounts that can be spared from professors' research funds for student support, the size and flexibility of competitive offers from other jurisdictions, and the number of students that can be supervised by the teaching staff. Manpower estimates and employment opportunities are a factor only to the extent that prospective students are influenced in their decisions whether or not to enter graduate school by what they perceive to be career opportunities.

Graduate work of high quality is essential to the well-being of the Ontario university system. We are unlikely to achieve good graduate departments without effective allocation of resources and responsibilities to various universities. Gradually we will achieve a planned growth pattern, but in the meantime we must seek to make the best possible use

of the resources allotted (such as federal and provincial scholarships) even though the allocations may be made in a relatively ad hoc way. It should be noted that the decision to allocate a given amount of money in any year to the POGF program, however that decision may be reached, is equivalent in a fairly direct way to controlling graduate enrolment. If no financial support is available, most students will either not undertake graduate work or will leave the province to do it. We believe that our recommendations provide a framework in which the planned development of graduate work in the province can proceed most effectively.

Our first recommendation assumes that what is true at the moment will continue, namely that the admission standards of the graduate schools are appropriate to permit success for essentially all students accepted. It might be objected that this situation could change if there were an open-ended policy to support "all" students achieving a stated scholastic level, for there would be great pressures to award students the undergraduate grades necessary for such support. But we do not make such an open-ended proposal. Our recommendation to support "all" students is made on the assumption, more fully discussed above, that there will be an overall plan for graduate studies, even if that plan be no more sophisticated than the existing arrangements which include an arbitrary allocation of a fixed number of dollars to the fellowship programs.

The exclusion of professional programs is a continuation of present practice. In cases like the master's degrees in Business and in Education there is empirical evidence that students in large numbers pursue these programs with rather little support: presumably the reason is that

consequent financial gains to the individual are readily and distinctly apparent.* In other examples, such as the clinical areas of Medicine, alternative sources of financial support are adequate. Thus, although theoretical grounds for making the distinction may be obscure, we recommend on pragmatic grounds that the present POGF exclusion of professional programs continue as a general rule. This is the first of several of our recommendations which will demonstrate that our position has been adjusted by the financial realities.

We recommend support for foreign students to a limited extent. Discussion of this question will be found in connection with Recommendations 23 to 27.

2. That graduate students receive varying amounts of financial support. As support should depend primarily on academic merit, we recommend the establishment of three distinct categories based on an evaluation of academic ability, performance and promise.

It is important, in the first place, to encourage the academically most able to give serious consideration to undertaking advanced studies since they are the very people who have the best possibilities of competing careers. The Ontario graduate schools should have their fair share of the most able students of the country, and indeed, of the world. In addition to improving the quality of the graduate schools of Ontario these highly talented young people are most likely to benefit society once they have completed their graduate work. It is clear, therefore, that we must support our very best students at attractive and competitive levels.

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* Indeed one study (Dodge-Stager) identifies the M.B.A. as the only graduate degree with a positive correlation to increased earnings in later life.

There are also good reasons for supporting the able and competent, as distinguished from the outstanding graduate students, but here the required support levels need not be so high.

There is also room in graduate programs for some students who, while meeting admission standards, would not be given support within the funding limitations implied by a planned development. Often such students are persistent, industrious workers, sometimes they have qualities of originality not made evident by the more formal academic criteria used to assess undergraduates. Such students should, we feel, find graduate work financially possible, although with greater personal investment.

These academic classifications considered above lead to our recommendation that there be three categories of graduate students for support purposes. The amount of support within each category may also be modified by other factors such as teaching ability and dependents.

3. That the three categories be roughly equivalent respectively to the standing usually labelled First Class or A standing; Upper Second or B+ standing; and Lower Second or B standing. The assessment would be based primarily on formal course standings, but with weight also being given to demonstrated and potential research ability, originality and creativity.

While we recognize that many factors besides marks are relevant to assessing a student's scholastic performance, we have given them priority in our scheme because they reflect many different assessments over a

number of years.

The first two categories are generally held to include those capable of pursuing doctoral work. We also note that many departments normally restrict admissions to students in these categories, but there are many exceptions, and for good reasons.

The operational procedures for distinguishing the three categories and for the awarding of scholarships by a provincial committee are discussed in connection with Recommendations nine and ten.

4. That scholarship support be available to the students in the graduate schools in categories 1 and 2.

This recommendation, coupled with the support programme for the students in category three, outlined in Recommendations 20-22 and with the exclusion of professional programmes and some other minor modifications, constitutes our operational interpretation, within the framework of planned -- and hence limited -- resources, of the principle that "all" students should be supported.

More precise recommendations follow in the subsequent sections. They give meaning to the phrase "full scholarship support" and provide a series of safeguards against potential abuses.

B. SCHOLARSHIP SUPPORT FOR CATEGORY ONE

5. That students in category 1 receive a prestige scholarship such as a National Research Council Scholarship, a Canada Council Fellowship, or an MRC award -- a minimum of $3,500 in scholarship money per annum. (The phrase "per annum" in this and later recommendations means "for full-time study for 12 months with a proportional adjustment for shorter periods of full-time study.")

This recommendation affirms our agreement with the NRC policy of attempting to support with scholarships all graduate students with first class standing, and the Canada Council policy of attempting to support all first class doctoral students. But it also points to the need for a category 1 award in the humanities and social sciences at the master's level.

6. That the need for a category 1 award in the humanities and social sciences at the master's level be met either by an expansion of the Canada Council program to include M.A. candidates or by a prestige provincial award (of approximately equivalent value to the NRC scholarships tenable by master's students). The program of prestige provincial awards should provide for students in both arts and science who do not receive federal awards.

There are two ways in which the Canada Council might expand its programme to include first class students at the master's level and we suggest that both of these possibilities be explored with the Council before any consideration is given to the establishment of a category 1 provincial award. The Canada Council might follow the practice of the NRC and award scholarships for a first year of graduate study. Or it might award a smaller number (say 100) prestige fellowships, similar to the NRC Centennial Science Scholarships, tenable in Canadian universities for a period of four years, to students who have demonstrated clearly by academic record and personal interview that they are able to pursue a doctoral program.

We recommend the establishment of a provincial scholarship scheme for the support of category 1 students if the Canada Council does not extend its program to the master's level. And the provincial scholarship

scheme need only be as extensive as to provide extra awards at the $3500 level for the numbers of first class students not supported by the Canada Council and NRC.

Our recommendation that a prestige award should be available at the master's level to first class students in the humanities and social sciences is supported by the experience of the graduate schools that the first class master's students do in fact go on to the Ph.D.

C. SCHOLARSHIP SUPPORT FOR CATEGORY 2

7. That students in category 2 receive an Ontario Graduate Fellowship or equivalent non-service award -- a minimum of $2400 in scholarship money per annum; that the Ontario Graduate Fellowship be increased from $2250 to $2400 -- $800 per term; and that the number of POGF's available each year be adjusted with the objective of providing scholarship support for all category 2 students in mind.
(The word "term" in this report refers to a four month period; there are 3 "terms" a year).

Because of the uneven distribution of POGF's between Arts and Science it is consistent with all our recommendations to regard money paid to Science students from NRC research grants for work towards their own thesis as non-service awards equivalent to POGF's. (See Recommendation 11).

The small increase in the amount of the POGF is recommended in order to reduce the gap between categories 1 and 2. The POGF itself does not provide a reasonable subsistence level for most students, but they will have the opportunity to earn additional money by teaching, demonstrating, etc., and thereby to secure a twelve-month income sufficient for their needs.

8. That the upper limit for financial support under the revised POGF program be set at twelve terms from the honours bachelors degree to the Ph.D., and at four terms to the master's degree.

While it is possible to recommend appropriate upper limits of scholarship support to the standard master's degrees and to the Ph.D., the committee is unable to suggest an appropriate upper limit for the M.Phil. degree and other extended master's programs.

9. That in place of the quota system of the present POGF program, the new program contain an open competition in two divisions (for a first year of graduate study and for a second or subsequent year of graduate study) for four-fifths of the OGF's available annually. A committee of O.C.G.S. would award OGF's to as many as possible of the students in category 2, and to any residue of category 1 students. Initial awards in each division of this competition would be portable within the provincially assisted universities. Canadian citizens and landed immigrants resident in Canada but not in Ontario may constitute up to 20% of the awards held at a university, with the exception that the emergent universities and new programs in established universities could exceed this limit.

The method of awarding 80% of the POGF's through open competition instead of through the present quota system is recommended in order to maintain the principle that academic merit should be the most important criterion for determining graduate student support. Universities would compile two lists of students (one for each division), the lower half of each to be ranked in order of academic merit. Students applying from outside the province would be ranked, together with their own students,

by the universities to which the out-of-province students are applying. It would be the task of a provincial committee to judge and collate the ranked portions of these lists, and thereby to determine, in the light of the number of awards available, the cut-off point in each list. The fellowship committee will judge on strictly academic grounds* and thus may alter the ranked order or delete names that are not in category 2. The committee might well overaward to an agreed percentage, on the example of current practice, and it would be responsible for reallocating unaccepted awards to candidates on the original lists.

The open competition will be held annually in the spring to award fellowships which may be held for two or three consecutive terms and which may commence in May, September, or January. An award is defined as an amount equivalent to scholarship support for two or three terms (i.e. a $1600 award for two terms or a $2400 award for three terms). On application an $800 supplement to an award may be granted in connection with each degree for which the student is a candidate.

Fellowships awarded in these open competitions are portable and are tenable at any Ontario university. An award is normally renewed for a Ph.D. student beyond his first year of Ph.D. work provided that satisfactory academic performance and progress is maintained; such renewals are not portable. If a student wished to change universities after the first year of Ph.D. work, a new fellowship application would be required. A list of the successful candidates in the open competition will be made public.

It seems unreasonable to restrict <u>new</u> programs in the number of Canadian, but non-Ontario, students they may enrol.

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* See Recommendation 3 for the categories of academic excellence.

10. That one-fifth of the POGF's available in the new program in any one year be allotted to the individual universities by D.U.A. in consultation with O.C.G.S. Quotas will be established on the basis of enrolment but D.U.A. in conjunction with O.C.G.S. will take into account additional factors such as universities with new graduate programs. The emergent universities face special problems and a fixed number of fellowships each year shall be set aside for them. The universities may award the quota fellowships only to students in categories 1 and 2 who are either late applicants, foreign, or unsuccessful in the open competition. These awards would be portable only by agreement between the universities concerned.

After being notified by D.U.A. of its quota of additional awards, each university would proceed to allocate them to eligible students, including, if it so desired, students on the original lists submitted who were not awarded fellowships, foreign students* up to 15% of the POGF's accepted for tenure at the university, or to students applying after the deadline for the open competition. Full documentation for each recommendation will be submitted to D.U.A. and these awards would be subject to a spot audit by the provincial scholarship committee to assure that the category 2 standard was being maintained.

The proportion of POGF's in quota allotment is set at 20% in order to achieve the aims of the over-all support program recommended in this report. Since the open competition might alter the proportion of POGF's held at the various universities, a transitional period of one year is recommended. During the transitional year the new scheme would be implemented except that (i) the fraction of awards for open competition

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* By "foreign students" we mean those in Canada on a student visa: landed immigrants are not foreign students. See Recommendations 23 to 27.

would be one-half, and (ii) the remaining one-half would be allocated by D.U.A. utilizing the present criteria.

11. That the 80/20 Arts/Science ratio be maintained in the open competition but subject to annual review, and that awards under university quotas not be subject to an Arts/Science ratio. To provide a balance for the entire support scheme it is necessary to regard any money paid to category 2 students from N.R.C., M.R.C. and Canada Council research grants as non-service research assistants as a scholarship similar to a POGF.

Retention of the present allotment of 80% of the POGF awards to the Social Sciences and Humanities and 20% to the Physical, Biological and Applied Sciences is recommended by the committee as a compromise between conflicting positions and in the absence of compelling data suggesting modification. Sufficiently detailed information on levels of support and proportion of students receiving support within the various divisions is not available to establish with certainty what differences exist between divisions and what changes may be taking place in the pattern of support. There appears, from examination of data gathered by the Canadian Association of Graduate Schools over the past two years, to be more generous support available for students in the Physical, Biological and Applied Sciences than in the other divisions; however, when adjustment is made for the large numbers of professional degree candidates in the Social Sciences not receiving support and for the larger proportion of students in the Social Sciences and Humanities enrolled for only eight months of the year, the balance may in fact lean in the other direction - larger incomes for Arts students.

Although there is a tradition in the Sciences of support of graduate students from funds granted to faculty members for research, this practice does

not appear to have been adopted in the Arts in the recent years when research funds have become increasingly available in these fields. The committee feels it extremely important that detailed information on student support be obtained and scrutinized each year in order to establish support levels in the different fields and to detect changes in the practice of utilizing research grants for student support.

Some of the purposes for which 20% of the awards are assigned to university quotas (new programs) make an Arts/Science ratio inappropriate for this portion of the awards.

D. LIMITS ON TOTAL INCOME

Recommendations 12 to 16 deal with total income limits and with the cumulation of non-service awards and service awards. Throughout North America the typical support of a graduate student consists of a scholarship (non-service) component plus a payment for services, either as a teaching assistant or as a service research assistant. In order to encourage good graduate students to select Ontario universities for their studies the income available in this province must be on the same scale as that available elsewhere in the United States and Canada. The income offered here need not exceed that elsewhere for the Ontario universities are prepared to compete on academic grounds with other institutions of similar standing. But the good student, graduating from a Canadian university, is confronted with considerable freedom of choice; and if we are to keep him in Ontario or bring him here, each university must have the necessary flexibility to make competitive offers and to make them reasonably quickly.

In 1969 the CPUO used these arguments in a brief to CUA requesting with considerable urgency that permission be given to use formula income for graduate student scholarships and fellowships as well as for teaching

assistantships. If scholarship support is provided for "all" category 1 and category 2 students in accordance with Recommendations 5, 6 and 7, and if POGF's are available as proposed in Recommendation 10, to late applicants, then the need for a large number of university - financed non-service awards becomes less stringent. But if these recommendations are not implemented, the universities will require scholarship funds from formula income as requested earlier.

In any case the universities will continue to make payment for services, and this fact introduces the need to consider income limits and scales of pay. For it is clear that, without such agreements, abuses could arise. There can be, and not infrequently is, a remarkable variation in the rates of pay to students for services rendered. Although it is difficult to obtain precise figures, there is undoubtedly a scholarship component in the payments made to many graduate students for teaching because the levels of support are often equivalent to an hourly rate of pay which would be hard to justify.

In these cases the student effectively has a non-service award in the guise of an assistantship, and there are very few safeguards surrounding the use of these "awards". No doubt this technique has frequently been used fairly, but since the pay of teaching assistants in many universities is controlled at the departmental level, there have been inequities between departments, and sometimes within departments. Moreover, this system does allow the possibility of "buying" students. One may, for example, arrange a relatively high payment for relatively nominal duties to one student, if other students can be found to carry the demonstrating load at standard or slightly substandard rates of pay. This particular device may at present

be used to make financially attractive offers not only to those students whose income is from "service" awards, but also to those who obtain external scholarships. For example, one can pay an NRC scholar for demonstrating, and this is desirable, but if one is to prevent the undesirable "buying" there should be agreement on the limits within which demonstrating is to be compensated.

It is also important that the available funds be used to best advantage and so distributed as to support more students adequately rather than fewer students at an unnecessarily high level. In order to make the student award program just, it is necessary that universities agree to abide by a set of rules like the following six recommendations.

12. That no portion of a POGF be held in conjunction with a category one award.

The category 1 awards are of a sufficient amount that to supplement them by further non-service awards would be an undesirable use of provincial funds.

13. That full-time students on scholarships (NRC, Canada Council, POGF, etc.), non-service research assistantships or loan/grants be permitted to hold a teaching assistantship or a service research assistantship provided that (i) the terms of the scholarship are adhered to (ii) the amount of time does not exceed ten hours per week (iii) they are not so employed for more then two consecutive terms in any 12-month period. A term is roughly 4 months; there are three terms a year.

A research assistantship is a "service research assistantship" if the research work done can not be applied directly to the student's thesis

research. The limit of ten hours per week is consistent with the definition of a full-time student used by the Department of University Affairs for formula income purposes. The restriction to two consecutive terms is to ensure that adequate time is available to the student for his studies and research; the Ontario universities are making considerable effort to influence students to remain full-time students continuously until they have finished their Ph.D.'s.

14. That the amount paid to any full-time graduate student for a full assistantship involving tutorial work, demonstrating, marking or service research not exceed $900 per term; a full assistantship is for eight to ten total hours of work per week, and for a lesser number of hours the amounts are to be pro-rated; and that the quality of work performed can be recognized by the universities by variations in the rates of pay within the agreed limits.

While still permitting reasonable freedom for payments for service, this recommendation will largely prevent the "buying" of students.

The limits suggested take into account existing practise and have been extended to permit flexibility.

If fees are remitted to a student, the amount involved is to be considered as a scholarship or as a part of the payment for services, depending on the university's arrangements.

15. That the amount paid to a full-time graduate student with full responsibility for an undergraduate course not exceed $1500 per term to a maximum of $3000 for twelve months.

This recommendation recognizes the distinct difference in responsibility associated with the type of duties referred to here and those referred to in

Recommendation 14. (The person having full responsibility for an undergraduate course can be most easily recognized as the person who submits the final grades. However, it is not expected that these duties require more time: the ten hour limit per week still applies.

16. That the total twelve-month income of an Ontario Graduate Fellow not exceed $4200 at the master's level and $4600 at the Ph.D. level. That a person with one or more dependent children (or in an equivalent situation) be permitted to reach an income level of $1000 in excess of the earnings limitations proposed in this recommendation.

This recommendation is intended to ensure that available funds are distributed to as many students as possible without unduly restricting the possibilities of extra earnings for the student who requires the money. The limits refer to earned income from any source. Students who violate this provision will be required to refund money obtained from the OGF scheme.

17. That if a category 2 student does not achieve an income of $3000 he may avail himself of the grant/loan scheme outlined in Recommendations 18 to 22.

A student holding an Ontario Graduate Fellowship for three terms ($2400) and not earning any money by teaching or demonstrating may secure an additional $600 in a twelve-month period from the loan/grant scheme.

E. A LOAN/GRANT SCHEME FOR CATEGORY THREE

18. That graduate students in category 3 have in a twelve-month period an amount of money comparable to those in category 2; that there be a loan/grant scheme providing a maximum payment of $2400 in twelve months; and that the upper limit from the loan/grant scheme and additional earnings be $3000 for single graduate students and $4200 for graduate students with dependent children or in an equivalent situation.

Students in category 3 are clearly acceptable for graduate studies, and a situation in which some graduate students have little, if any, financial support, while fellow graduate students have full fellowship support is thought to be unsatisfactory. Certainly such a situation would hinder, if not preclude, cooperative graduate study and research.

The effect of this recommendation is to provide the category 3 student with an opportunity to pursue his studies on a full-time basis in the recognition that he may have to supplement his loan/grant. The maxima on total income (with provision for the student supporting dependent children) provides the opportunity for the student to supplement his basic level of support by additional earnings either from the university for services rendered or from outside sources. But the amount of money available from the loan/grant scheme would be correspondingly decreased in direct relation to the maxima on total earnings.

As with our other recommendations, this one is made on the assumption that an overall plan exists for graduate study in Ontario universities. A loan/grant scheme would not, therefore, be open-ended.

19. That some portion of the monies available to graduate students in category 3 be in the form of a repayable loan, and thus that a loan/grant scheme (similar to P.O.S.A.P.) be established for graduate students.

Though students in category 3 are clearly acceptable for graduate study their overall standing is not sufficiently high to warrant full fellowship support. Thus some portion of the overall financial support should be in the form of a repayable loan.

20. That the loan/grant scheme be such that approximately one-half of the maximum level of financial support available to a category 3 graduate student be in the form of a loan and the other half in the form of a grant.

Though justification of this split cannot be easily made on formal grounds it does seem reasonable that the graduate student in category 3 should be willing to at least match the contribution to his graduate education made by the provincial government. We note that like other graduate students, the student in category 3 foregoes earnings while undertaking graduate study and the government contributes, in the form of direct operating and capital grants to universities, a sume that is roughly equal to these foregone earnings.

21. That the graduate student in category 3 be eligible for an initial loan of $500 ($167 per term) and for additional monies in the form of a loan/grant in a 40/60 ratio to bring the monies available in a twelve-month period to the permitted limits ($3000 and $4500 - see recommendation 18), but with the combination of loan and grant monies in no case to exceed $2400 in twelve months and $800 per term.

As a consequence of this recommendation, a student requesting the maximum available from the loan/grant scheme would secure $1260 as a repayable loan and $1140 would be an outright grant in a twelve-month period. On a term basis the loan portion would be $420 and $380 would be grant.

By having the initial portion of monies received under this scheme in the form of a repayable loan, possible misuse of the scheme would be minimized.

A means test was thought to be theoretically useful but practically impossible to administer in an equitable way among students in a single university and across the province. This is so because the graduate student

is an independent person and thus the level of assistance that may be provided by parents will vary even among families of roughly similar incomes.

The following chart shows how students in category three could use the loan/grant scheme. Comparisons with category two students are included.

	CATEGORY 2		CATEGORY 3		
	with T.A.	without T.A.	with T.A.	without T.A.	With non-service research assistantship*
One term					
POGF or Non-service Research Assistantship	$800	$800	$ 0	$ 0	$1000
Grant	0	20	200	380	0
Loan	0	180	300	420	0
Teaching assistantship or service Research Assistantship (Sample-$600 per term)	600	0	600	0	0
Two term total	1400 x 2 = 2000	1000 x 2 = 2000	1100 x 2 = 2200	800 x 2 = 1600	1000 x 2 =2000
Third term					
POGF or Non-service Research Assistantship	800	800	0	0	1000
Grant	0	20	380	380	0
Loan	0	180	420	420	0
Yearly totals	$3600	$3000	$3000	$2400	$3000
Scholarship or Grant	2400	2460	780	1140	3000
Teaching Assistantship	1200	0	1200	0	0
Loan	0	540	1020	1260	0
	$3600	$3000	$3000	$2400	$3000

* It is recognized that some granting agencies (e.g. M.R.C.) would permit payment to category three students as research assistants at a higher level than the maxima recommended in this report ($3000 for the single student and $4500 for the student with dependent children). A category 3 student so supported would not be eligible for provincially funded support either through the loan/grant scheme or as a teaching assistant. (See Recommendation 18).

22. That interest on the repayable loan portion be charged from the first day of ceasing to be a full-time graduate student and that the interest rate be equal to the prime lending rate available at commercial banks.

F. THE SUPPORT OF FOREIGN GRADUATE STUDENTS

23. That a foreign component of at least 10% be recognized as academically desirable in the graduate schools of Ontario.

All serious studies of graduate education have acknowledged the importance of a significant proportion of foreign student enrolment to the vitality and maintenance of quality in graduate programs, although none presumes to define the optimum proportion of such enrolment. The Spinks Commission Report for example, states that foreign students "should not only be given such support as the universities and the Province can afford but they should be actively recruited. Canadian universities have been unhappily reticent about extolling their advantages to the rest of the world" (P. 36).

When we recall the desirability of having Canadian graduate students interact with those from other cultures, the consequent improvement in quality and content of some academic programs such as area studies as a result of participation by foreign students, and the international character of all scholarship, we realize that the universities of Ontario not only have an obligation, but it is to their advantage, to retain and support a proportion of foreign students. Moreover, in recognition of the large number of Canadian scholars who receive education abroad, and the resulting improvement in international understanding, there is a responsibility for reciprocation. In the year 1968-69 there were approximately 1400 Ontarians

in the graduate schools of the United States and approximately 1200 U.S. citizens were studying in Ontario graduate schools. We believe that this sort of reciprocal exchange should continue.

It has sometimes been suggested that the support of foreign students is the responsibility of the federal government on the grounds that this constitutes aid to underdeveloped countries, but that view cannot be sustained for two reasons. In the first place we have argued that a foreign student enrolment is a positive benefit and necessary for the health of our universities, and to this extent it is a provincial responsibility. Secondly, the majority of foreign students do not, in fact, come from countries which are, by any measure, underdeveloped. The Canadian International Development Agency does, of course, provide support for modest numbers of foreign students, and it is our hope that such programs will be maintained and enlarged. However, these programs support very few students.

By far the majority of foreign students do not have scholarship support, and the present situation is the result of recent uncoordinated changes in the regulations governing the major scholarship programs of federal and provincial agencies. In order to make it once again possible to obtain the advantages stated above, and to fulfill the concomitant responsibilities we submit the following recommendations.

24. <u>That foreign students be eligible for all scholarships (NRC, MRC, Canada Council and POGF) available to Canadian citizens and landed immigrants in the graduate schools of Ontario up to approximately 15% of the number of awards.</u>

The present inability of universities in Ontario to provide support to foreign graduate students by any means other than teaching assistantships is embarrassing and intolerable. The Spinks Commission suggested 10% as a desirable percentage of foreign students in Ontario universities, and this recommendation is the best way of achieving the desirable percentage, as the figures provided in Recommendation 26 demonstrate.

25. That the foreign student support component be built into the N.R.C. Scholarship and Bursary programs rather than into the research grants.

This recommendation is intended to ensure the selections of foreign students of the highest quality.

26. That not more that 15% of the OGF holders in a university be foreign students, and not more than 20% of the POGF in any one university graduate division or faculty be held by foreign students. A faculty with fewer than 10 graduate students would be an obvious case for exception.

These recommended limitations of the foreign student quota within the POGF program permit some redress of the awkward situation that foreign students are not eligible for scholarships, while at the same time it provides a firm safeguard against excesses.

We have calculated that a 15% foreign quota on POGF's would permit a foreign enrolment of approximately six percent, and if the federal agencies permit a 15% foreign quota, the foreign enrolment could rise to 10%. It is obvious that our recommendations do not solve the foreign student problem facing the Ontario universities, but we believe them to be a step in the right direction.

In a typical graduate school with 1000 students the effect of this recommendation would be as follows:-

	Science	Arts
Total enrolment	500	500
Category 1 enrolment	125	125
Category 2 enrolment	250	250
Category 3 enrolment	125	125
Category 1 awards	125	125
Ontario Graduate Fellowships (80:20 split)	62 (1/4 of 250)	250
POGF's to foreign students (Total number = 15% of (250 + 62) = 47)	12	35
Percentage of foreign POGF's to total enrolment	2.4%	7.0%

The 15% foreign quota on the POGF program would permit the support of only 47 foreign students in a population of 1000 - or 4.7%. If the 15% foreign quota were added to the federal scholarships there could be 19 more foreign students in each of Arts and Science and the percentage could rise to 8.5% - the Science division could have 6.2% and the Arts division could have 10.8%. Foreign students supported by C.I.D.A. would be additional. Also NRC might include foreign students in its Bursary scheme.

Comparing foreign student enrolment and support in the typical graduate school of 1000 in the years '69-'70 and '72-'73 (assuming that our recommendations would be fully implemented by '72-'73) shows the following:-

Year	Total Foreign Enrolment	Science	Arts
'69-'70	170	110 (10 C.I.D.A. (50 N.R.C. Grants (50 Teaching (Assistantships	60 (10 C.I.D.A. (50 Teaching (Assistantships
'72-'73	104	50 (10 C.I.D.A. (12 POGF (19 NRC Scholar- (ships (9 NRC Bursaries	(10 C.I.D.A. (35 POGF

It is seen that the 10% foreign enrolment is achieved. It is also clear that both the federal government agencies and the provincial government, by altering the proportions in their separate schemes, can control the overall percentage of foreign students.

27. That the loan/grant scheme for the support of students in category 3 not be available to foreign students.

Our reasons for having foreign students, expounded in detail above, suggest that the students fall into two distinct groups. Those whose presence is a definite advantage to the universities will be in categories 1 and 2 and will have scholarship support. Those whose education is a federal responsibility may be in category 3, but they will have support from outside agencies. Therefore the loan/grant scheme would not be required for foreign students in Ontario universities.

G. STUDENTS IN PROFESSIONAL STUDIES

28. That as a general principle students in professional fields be excluded from the program of support outlined in these recommendations.

Our reasons for this recommendation are given under Recommendation 1. The eligible disciplines for POGF's would be revised each year by the OCGS and certain professional fields might be included. This recommendation results from both academic and financial considerations. Those professional students not eligible for graduate student scholarship support can, of course, continue to apply for assistance through POSAP or its successor. It is not recommended that the loan/grant scheme for the support of category 3 graduate students be available to students in professional fields.

H. FUTURE MODIFICATIONS

29. That the recommendations of this report be reviewed from time to time by OCGS with a view to revision in the light of changes in levels of support by Canada Council and NRC or in competitive conditions, and that the possibility of introducing other programs not at present included in the OGF scheme be kept under review.

We are certain that the general principles behind these recommendations are sufficiently evident that any necessary future modifications can be made, and the spirit of the recommendations preserved, as changes occur in cost of living, support levels of other programs, income tax structure, etc.

I. COST ESTIMATES

It is obviously of great importance that the cost of our proposals be estimated. We have estimated what the cost would have been in 1969-70 since figures are available for that year.

Our first task was to estimate the number of students in categories 1 and 2. This was done by asking each university to indicate how many of its graduate students, in POGF eligible disciplines, would have at least upper second class standing. Since no precise search of the individual records are feasible, the figures were estimates. They indicated that, of the 4924 students enrolled in the Arts disciplines eligible for POGF's, 3939 were in categories 1 and 2. Although it is true that many departments admit only students with upper second class standing, detailed examination of the returns suggested that there was a tendency to overestimate the number of such students. The Committee adopted 3500 as the number of category 1 and 2 students in Arts disciplines.

To estimate the number of POGF's that would have been awarded under the proposed scheme it was necessary to subtract the 575 students in Ontario universities who hold Canada Council fellowships, the 850 visa students estimated to be amongst the category 1 and 2 students, and the 150 students assumed to be holding other major awards. This leaves 1900 category 1 and category 2 Arts students who are citizens or landed immigrants, and who should obtain POGF's. Using the 80/20 Arts/Science ratio, and assuming that the 15% foreign quota is used to the permitted maximum (20%) in Science, it follows that 2770 POGF's would have been required in 1969-70.

(i) Translating the 2770 POGF's into dollars in accordance with the formula used in the current year:

Winter awards: 2770 x $1500 = $4,155,000

Summer awards: 70% of 2770 x $750 = $1,417,500

(ii) The cost of increasing the value of the POGF to $800 a term is:-

$$\frac{5}{75} \times 5.57 = \$0.37 \text{ million}$$

It is to be noted that even with the increase in the value of the award the cost of the new scheme $5.94M would have been less than the 6 million that was allotted the POGF program in 1969-70.

(iii) The 1969-70 cost of the addition of the new program for the support of category 3 students in Arts via grants/loans would have been as follows:-

The number of category 3 students in Arts is estimated to be 1429 (4929 - 3500). Probably this implies about 1200 who are Canadian citizens or landed immirgrants. The average grant to a category 3 student is estimated to be $1000. Therefore a grant/loan program in 1969-70 would have cost

1200 x $1000 = $1.2. million

Category 3 students in Science will obtain substantial support from research grants. It therefore seems liberal to allow $400,000 for their support via the proposed grant/loan scheme. For both Arts and Science the grant/loan scheme would have cost

$1.6 million in 1969-70.

(iv) The addition of 600 prestige awards at the master's level in Arts, which we have recommended as a provincial responsibility if it cannot be absorbed by Canada Council, will cost:-

600 x $1200 = .72 million

In 1969-70 the <u>total cost</u> of the proposed scheme with all new programs would have been:-

(i)	2770 POGF's	=	5.57 million
(ii)	increase in value	=	.37 million
(iii)	grants/loans for category 3	=	1.60 million
(iv)	600 prestige awards at master's level	=	.72 million
			8.26 million

Allowing for interest on the grant/loan scheme will raise the total to 8.5 million.

The 8.5 million cost estimate for 1969-70 should not be compared to the 6 million allotted for POGF's in 1969-70 because the 8.5 million represents the cost to the province of an improved <u>total</u> graduate student support program which combines POGF's, new prestige provincial fellowships and a loan/grant scheme.

III. A NOTE ON THE OPPOI TUNITY BANK CONCEPT

A. CONTINGENT REPAYMENT SCHEMES

A number of contingent repayment schemes have been proposed recently, and to the extent that such schemes could affect graduate student support in the Province of Ontario it is important that they be considered in this report. The committee paid particular attention to the Cook - Stager proposals, but our comments would also be relevant to other schemes such as the "Proposal for a New Program of Financial Assistance to Students" by the Post-Secondary Education Committee of the Council of the Ministers of Education, November 21st, 1969.

The report on Student Financial Assistance Programs by Gail C.A. Cook and David A.A. Stager recommends that an Educational Opportunity Bank, similar to that proposed in the United States in 1967 by a Presidential Advisory Committee, be established in the Province of Ontario. The chief factors influencing this recommendation are (i) the rapidly increasing expenditures and demands on public funds (ii) the high private rates of returns, and (iii) the redistribution of incomes resulting from higher education.

The Cook - Stager contingent repayment assistance scheme attempts to identify that social group which, in the future, will be called upon to make the financial transfers required to support post-secondary education. Under this scheme the group which supports higher education will be made up of those who have received past financial assistance, paying according to their financial success.

The transfer program suggested reflects the recognition that individuals draw upon the resources of the community at certain points in their lives, and contribute to the resources of the community at other points. The answer to the question as to how widely the public should be expected to support such a transfer program depends in part upon the extent of the direct material benefits conferred by post-secondary education as compared to the indirect benefit realized by the community.

The Cook - Stager report recommends an increase in the extent of contribution to education costs from those benefitting directly. Their scheme would permit tuition fees to be raised to cover the full cost without any restriction of access to higher education arising from income or wealth constraints. At the same time the scheme would allow for the subsidization of those disciplines which benefit society generally; to be accomplished by variations in required repayment rates.

The Cook - Stager report is addressed primarily to the problems of financing post-secondary students in the universities and community colleges, but the highly complex problems of graduate student support are not considered. The input to the report is almost entirely data collected at the undergraduate level; and the only support program which is analysed in detail is the Province of Ontario Student Awards Program which, with the exception of professional degree studies such as the M.B.A., has not been a significant component in provincial graduate student support.

B. COMMENTS.

In the critical comments which follow we attempt to envisage the effects on the graduate schools of Ontario if the Cook - Stager model

for the financing of higher education were applied, and to show why our recommendations can accomplish the same goals by more effective means.

The Cook - Stager model attempts to provide a framework in which at least two goals are to be achieved: first, to make available to any potential entrant to post-secondary education the financial support necessary to enable him to meet the costs of that education; secondly to ensure an equitable distribution of the costs and benefits (both private and social) of higher education.

The first goal is consistent with the recommendations put forward in this report for graduate student support. But for graduate work the Cook - Stager proposals would be a much less effective means of achieving the goal since they introduce gradations in tuition fees, levels of support, and rates of repayment, on the basis of private and public benefits. In our view this would create an intolerable situation in our graduate schools. The only gradations we have recommended relate to levels of support, and are based on academic merit which we know from experience both students and faculty will accept.

The Cook - Stager model is also deficient as a means of accomplishing the second stated goal. To implement the Cook - Stager model presumes that one can measure very precisely and relatively inexpensively the costs and benefits of graduate education both to the graduate students and society at large. Although some attempts have been made to measure the full costs borne by graduate students (including, of course, foregone earnings) and the strictly economic benefits accruing to graduate students*, virtually

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* cf. D. Dodge and D.A.A. Stager, "Rates of Return to Investment in Graduate Education in Canada (Toronto: Working paper series, Institute of Economic Analysis, Forthcoming, 1970)

no research has been conducted on the social benefits of graduate (or undergraduate) education. Indeed, the possibility of conducting any definitive research to assess social benefits seems very remote. We are reminded of the many attempts of the Patent Commission to develop criteria of social utility, and the fact that in spite of these attempts all patents are still issued for seventeen years. On the other hand, criteria based on academic merit, such as we are recommending, have been acceptable for many years.

We have discussed our two major theoretical objections to the Cook - Stager proposal: discrepancies not based on academic merit, and the inability to evaluate the benefits of higher education. But there are other practical objections related to the implementation of the Cook - Stager proposal at the graduate level.

Because of the absence of a comprehensive cost-benefit analysis we think it would be unwise to increase graduate student tuition levels solely on the basis of the relative costs and benefits accruing to graduate students per se. In terms of costs, at the present time the graduate student contributes fees and makes a significant sacrifice of potential earnings. Since a number of surveys * have shown that attendance at graduate school does not result in a significant increase in income, any move to make graduate education more expensive will reduce the numbers undertaking graduate work considerably.

For while the plan might benefit the graduate student temporarily and enable him to live more comfortably during his academic years, almost

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* Dodge and Stager, also O. Ashenfeldter and J.D. Mooney, "Some Evidence on the Private Returns to Graduate Education", The Southern Economic Journal, Vol. 35 (Jan., 1969), Pp. 247-256

everyone would have to make a debt repayment with interest. Such payments would form a top-priority salary deduction which would cripple a young family. In reacting to this potential mortgaging of their future it is quite conceivable that students would go elsewhere (United States, etc.) for graduate work and thereby not incur such a debt. Thus the public benefits of graduate education (which must be acknowledged, but which cannot be measured) would be forfeited, and higher education would be to too great an extent responsive to imperfectly estimated manpower requirements.

If proposals similar to those of the Cook - Stager report were adopted, the Ontario graduate schools would be operating at a distinct disadvantage if the student could go to other jurisdictions and not incur a debt. Since the graduate student is more mobile and has fewer family ties, he is more likely than the undergraduate to study out of the province. In the Cook - Stager report few problems are anticipated in the collection of debts from the students. However, the problems are greatly magnified at the graduate level since in a recent study it was shown that as many as 35% of Ph.D. graduates are likely to be abroad in the years immediately following graduation - this might increase if by moving, the graduate could avoid a debt of ten to thirty thousand dollars.

Likewise the exclusion of foreign students from the plan becomes a problem of significant proportions at the graduate level where 17% of the full-time students enrolled in the graduate schools of Ontario are foreign. As we have recommended a 10% foreign component the problem would remain significant under the scheme we are proposing.

With the onus being on the potential graduate student to evaluate the prospect of graduate study as a rational investment decision (the report implies this for all levels) there is a real assumption being made that perfect information is available on the benefits the student can expect to obtain through graduate education. Forecastable information on future job opportunities is not available now, and is not likely to be available in the future. Hence the plan places the prospective student in an untenable decision-making situation.

Although the opportunity bank concept involves a redistribution of the cost burden of education amongst tax payers, the plan is unfair to the current student generation since it requires them to pay a higher proportion of their expenses and correspondingly relieves the adults of the responsibility of paying for higher education. It is a one-generation pass-on.

The cost of administering the Cook - Stager model must be carefully estimated and compared to the costs of administering our scheme of graduate student support. We suggest that the estimating of benefits, the evaluating of disciplines and the granting of subsidies will cost considerably more than the planned enrolment approach which we are proposing.

The Cook - Stager proposal requires a thorough means test. We have already indicated our objection to a means test at the graduate level on the grounds that the level of financial support from parents varies even among families of roughly similar incomes. We doubt that a means test can be devised which will prevent the student from the wealthy family having an advantage.

The Cook - Stager plan endeavours to increase the opportunities for persons from lower income levels to have access to higher education.

We submit that in fact it does the opposite: by proposing that a higher proportion of the costs be borne by the individual student, it lessens the likelihood of persons from low income groups proceeding to higher education. Indeed, this is one of our main objections to the proposal. In contrast, in our own proposal the prime factor for determining the availability of financial support is academic excellence. Since the support level we propose for categories 1 and 2 is probably adequate, it is only with category 3 students that our scheme allows for parental wealth to bear significantly on the decision to attend graduate school. Perhaps it is not unfair to say that, in response to a criticism that there may be a trend to too many graduate students, the Cook - Stager reply is to raise the price, whereas we propose that an appropriate size and composition of student body be obtained by raising admission standards and making certain other academic adjustments.

In summary, the opportunity bank concept, as exemplified in the Cook - Stager report, is not a desirable approach to the problems of graduate student support since it assumes the existence of a sophisticated and quantitatively precise cost-benefit analysis of higher education, and because it introduces criteria other than academic merit. Rather this committee believes that it is through rational planning of student enrolment, the recognition of varying degrees of academic merit, and the exclusion of some professional schools (where the relatively high private to social benefit ratio does not merit further subsidization) that a more equitable distribution of the costs and benefits of graduate education can be achieved.

P P E N D I X A

EXCERPT FROM THE SPINKS COMMISSION REPORT, 1966, Pp. 7-10

Graduate Studies and Research in a Modern University

One of the dominant features of the complex university is the graduate school and the conscious search for excellence. Graduate studies are now so well accepted in the modern university that the writers of a recent report on graduate studies felt that they could start one chapter with the following sentence: "The Committee began its work on the assumption that graduate studies need no justification," and it is likely that no one would care to challenge this assumption. However, between agreeing generally with this assumption and agreeing to provide the rather staggering sums required for present-day graduate work and research at the universities, there may still be a rather large gap. Closing the gap by the provision of adequate funds is, in a sense, a political decision, since funds used for this purpose are not available for roads, social welfare and other desirable public ends. It is to help justify the closing of this gap that some further comment is presented on the paramount importance of graduate work and research to the provincial and national economy.

The first point to make is that the free atmosphere of a university seems to be particularly conducive to the furtherance of fundamental research, so that not only is good research done by the universities, but a number of autonomous or semi-autonomous research groups have also found it profitable to establish themselves on university campuses.

There is now at the university an increased emphasis on graduate work and research; an increased emphasis on training people to take their

place in research organizations, not only in the basic sciences, such as physics and chemistry, but also in medicine, economics, engineering and education; an increased emphasis on research for its own sake; an increased emphasis on excellence. All this is in keeping with the spirit of the new age - an age characterized by change, an age characterized by towering intellectual achievement. Our young people must be brought up to be aware of the fact that we have much yet to learn and that, in science at least, the only place from which to begin probing into the unknown is in the borderland of knowledge. In words attributed to Ashby:

> Universities are traditionally places where research is to be found...but...this is a very minor reason for requiring university teachers to advance knowledge. The main and compelling reason is that they cannot do the sort of teaching which is required of them unless they are advancing knowledge. Advanced work has to be done in the front line of scholarship. A student has to be led up to the 'no-man's land' between what is known and what is unknown. Now, the only kind of teacher who can be trusted to lead students to the frontier between the known and the unknown is a man who himself spends many of his thinking hours at that frontier. Only at the frontiers can man discern the anatomy of scholarship.

These same students must also be made aware that the world belongs to those who achieve - not only in the launching of satellites, where a superior thrust due to a superior chemical puts the heavier satellite into orbit, but also in business, where the corporation with the best research group comes up with the most revolutionary ideas, whether it be in artificial fibres, such as arnel, or in the latest type of jet aircraft.

The Importance of the Development of Science

This last principle has been discussed by the economist, Galbraith, in his book, The Affluent Society, in which he suggests that technological

change, brought about by marrying science and technology, is one of the prime economic forces, even more important nowadays than the classical trinity of productive factors: land (including natural resources), labour (including physical and intellectual effort), and capital. Most technological advance now is the result, not of the accident of inspiration or genius, but of highly purposeful effort. Once we had to wait for the genius of an Edison, but now we can get much the same effect by improved education and organization.

The 1960-61 report of the National Research Council of Canada has this to say:

> Because of the importance for defence, its implications for economic growth and its key position in modern society, the promotion of science and technology has become a major responsibility of all governments. Not only does the industrial prosperity and the military strength of a country depend ultimately on its scientific resources, but national prestige has come to depend largely on technological achievement.
>
> No country without a strong system of scientific and technical education and a comprehensive network of research laboratories can hope today to be a major power. Governments at all levels now recognize their obligation to provide a university system adequate for the education of scientists and to maintain an atmosphere conducive to scientific research...
>
> Although there is no absolute standard against which to assess the level of expenditure on research, two facts have become evident: (1) any industrialized country that does not allocate to scientific research a proportion of its national effort comparable to that of the most advanced nations will be unable to maintain its position in the world; (2) all evidence indicates that, since their beginning in the 18th century, organized scientific activities throughout the world have been doubling every ten to fifteen years, corresponding to a growth of between five and nine per cent per annum. This rate of growth is considerably greater than that of most other human activities (population, gross national product, government expenditures, etc.) and we must accordingly recognize that it cannot be maintained indefinitely. As yet, however, there is no sign that this rate has started to level off and it is necessary to assume that any country that does not increase its expenditures on research at a comparable rate will ultimately face a deterioration on its world position...

> It is clear...that compared with the United States and the United Kingdom, both government and industry in Canada are devoting substantially less of their resources to research and development.
>
> ...it does seem obvious that unless Canada as an industrial power is content to remain in an inferior position to the United States and the United Kingdom some way must be found to induce industry to devote more of its resources to research.

The Importance of the Development of the Humanities and Social Sciences

What has been said of the need for the development of science and technology applies in equal measure to the humanities, the fine arts and the social sciences. Since the end of the Stone Age and particularly in the past century and a half man has been spectacularly successful in dealing with his physical environment. In the same breath, however, it must be admitted that he has been singularly inept in dealing with his fellow man and even with his own spiritual problems. Until quite recently men sincerely believed that the hope for a better world lay in the conquest of nature and even today we still hear it said that science holds our best hope for survival. But we also hear more and more frequently the uneasy question: Survival for what? We have, to a great extent, lost contact with our past, with literature, with music, with art - and with each other. We have come to the painful awareness that our greatest problems are social ones, that we do not know how to deal with poverty, delinquency and crime in our cities, that we do not know how to live amicably with our neighbours, near and far, and that the great majority of our citizens have not the slightest idea how to make profitable use of the growing amount of leisure that science and technology now provide.

Much of our dilemma results from the relative neglect in the past thirty years of the humanities and social sciences in our colleges and universities. Our brightest young men and some women were attracted to the scientific disciplines with their glamour, their relatively greater financial support, and their promise of rapid professional advancement. The numbers of graduate students in history, philosophy, literature, as well as in most of the social sciences, particularly anthropology, dwindled and the supply of the new college teachers in these fields became a matter of serious concern.

Happily there is some evidence that this trend is being reversed. Undergraduates are now electing the humanistic fields in greater numbers than ever before but the graduate enrolments are still far from large enough to assure an adequate supply of college teachers in the next decade. It is therefore of the highest importance that the fields of the humanities and social sciences, on the honours and graduate levels, be made interesting and attractive enough to assure the development of an adequate number of broadly educated, imaginative, creative men and women to undertake and direct research toward the solution of our social and spiritual problems and toward the profitable utilization of the bright opportunities that science, technology and automation are providing. The universities of the Province must be awake to this challenge and must be prepared to meet it by greatly strengthening their non-science departments.

Earlier, many of our best young men and women went elsewhere for graduate work, and no one was very happy about this. Obviously, some of the best graduates should be encouraged to go abroad to enrich their

educational experience, but to allow this to become a general practice with evergrowing numbers, would mean that Canada was neglecting its responsibilities in the field of higher education. Progressively the country would lose many of its best brains and in the process lose its creativeness and independence.

Acceptance of this point of view has resulted in the growth of graduate studies and a much greater emphasis on research, both for its own sake and as an essential concomitant to teaching, in Canadian universities.

APPENDIX B

MAJOR SCHOLARSHIPS AVAILABLE TO ONTARIO GRADUATE STUDENTS

Conditions applying to 1969-70 Awards	National Research Council Postgraduate Scholarship	Canada Council Doctoral Fellowship	Province of Ontario Graduate Fellowship
12 - month value	$3600	$3500 for "students" $4500 for "teacher or equivalent" An additional $1000 for final Ph.D. year	$2250
tenable	in Canada	anywhere	in Ontario
total No. of awards	2118 for 1969-70	2165 for 1969-70	2825 winter awards of $1500 for 1969-70
No. of awards held at Ontario universities	887 for 1969-70	575 for 1969-70	2825 winter awards of $1500 for 1969-70
fields of study	pure and applied sciences	humanities and social sciences (mathematics)	humanities and social sciences - 80%; pure and applied sciences-20%
degree level	masters and Ph.D.	Ph.D. only	Masters and Ph.D.
required immigration status	Canadian citizen or landed immigrant	Canadian citizen or landed immigrant	Canadian citizen or landed immigrant resident in Ontario at the time of application
age limit	30 years of age	none	none
maximum years of support to completion of doctorate	4 years from commencement of Master's degree	4 years from commencement of Ph.D. degree	3 1/2 years from commencement of master's degree
permitted maximum no. of hours of paid work per annum	100 hours	7 hours a week (presumably 350 hours)	10 hours a week (presumably 520 hours)
12 - month limit on total income including scholarship	The limit is determined by the 100 hours maximum for which the student is paid at the rates in effect at the university	$5000 for "students" $7000 for "teacher or equivalent"	$4500 at master's level, and $5000 at Ph.D. level

APPENDIX C

RECOMMENDATIONS

1. That the attainment of the level of scholastic performance sufficient for admission to graduate studies in an Ontario university justifies some financial support to each student engaged in full-time studies. Some programs leading to professional degrees may be excluded for pragmatic reasons. This does not imply a financially open-ended program. We assume that either, as now, the money made available each year in the POGF program and similar programs will effectively control the enrolment in the Ontario graduate schools, or, hopefully, the amount of money assigned will be determined by the enrolment planned for in an agreed pattern of graduate development for the province.

2. That graduate students receive varying amounts of financial support. As support should depend primarily on academic merit, we recommend the establishment of three distinct categories based on an evaluation of academic ability, performance and promise.

3. That the three categories be roughly equivalent respectively to the standing usually labelled First Class or A standing; Upper Second or B+ standing; and Lower Second or B standing. The assessment would be based primarily on formal course standings, but with weight also being given to demonstrated and potential research ability, originality and creativity.

4. That scholarship support be available to the students in the graduate schools in categories 1 and 2.

5. That students in category 1 receive a prestige scholarship such as a National Research Council Scholarship, a Canada Council Fellowship, or an MRC award -- a minimum of $3,500 in scholarship money per annum. The phrase("per annum" in this and later recommendations means "for full-time study for 12 months with a proportional adjustment for shorter periods of full-time study.")

6. That the need for a category 1 award in the humanities and social sciences at the master's level be met either by an expansion of the Canada Council program to include M.A. candidates or by a prestige provincial award (of approximately equivalent value to the NRC scholarships tenable by master's students). The program of prestige provincial awards should provide for students in both arts and science who do not receive federal awards.

7. That students in category 2 receive an Ontario Graduate Fellowship or equivalent non-service award -- a minimum of $2400 in scholarship money per annum; that the Ontario Graduate Fellowship be increased from $2250 to $2400 -- $800 per term; and that the number of POGF's available each year be adjusted with the objective of providing scholarship support for all category 2 students in mind.
(The word "term" in this report refers to a four month period; there are 3 "terms" a year).

8. That the upper limit for financial support under the revised POGF program be set at twelve terms from the honours bachelors degree to the Ph.D., and at four terms to the master's degree.

9. That in place of the quota system of the present POGF program, the new program contain an open competition in two divisions (for a first year of graduate study and for a second or subsequent year of graduate study) for four-fifths of the OGF's available annually. A committee of O.C.G.S. would award OGF's to as many as possible of the students in category 2, and to any residue of category 1 students. Initial awards in each division of this competition would be portable within the provincially assisted universities. Canadian citizens and landed immigrants resident in Canada but not in Ontario may constitute up to 20% of the awards held at a university, with the exception that the emergent universities and new programs in established universities could exceed this limit.

10. That one-fifth of the POGF's available in the new program in any one year be allotted to the individual universities by D.U.A. in consultation with O.C.G.S. Quotas will be established on the basis of enrolment but D.U.A. in conjunction with O.C.G.S. will take into account additional factors such as universities with new graduate programs. The emergent universities face special problems and a fixed number of fellowships each year shall be set aside for them. The universities may award the quota fellowships only to students in categories 1 and 2 who are either late applicants, foreign, or unsuccessful in the open competition. These awards would be portable only by agreement between the universities concerned.

11. That the 80/20 Arts/Science ratio be maintained in the open competition but subject to annual review, and that awards under

university quotas not be subject to an Arts/Science ratio. To provide a balance for the entire support scheme it is necessary to regard any money paid to category 2 students from N.R.C., M.R.C. and Canada Council research grants as non-service research assistants as a scholarship similar to a POGF.

12. That no portion of a POGF be held in conjunction with a category one award.

13. That full-time students on scholarships (NRC, Canada Council, POGF, etc.), non-service research assistantships, or loan/grants be permitted to hold a teaching assistantship or a service research assistantship provided that (i) the terms of the scholarship are adhered to (ii) the amount of time does not exceed ten hours per week (iii) they are not so employed for more than two consecutive terms in any 12-month period.

14. That the amount paid to any full-time graduate student for a full assistantship involving tutorial work, demonstrating, marking or service research not exceed $900 per term; a full assistantship is for eight to ten total hours of work per week, and for a lesser number of hours the amounts are to be pro-rated; and that the quality of work performed can be recognized by the universities by variations in the rates of pay within the agreed limits.

15. That the amount paid to a full-time graduate student with full responsibility for an undergraduate course not exceed $1500 per term to a maximum of $3000 for twelve months.

16. That the total twelve-month income of an Ontario Graduate Fellow not exceed $4200 at the master's level and $4600 at the Ph.D. level. That a person with one or more dependent children (or in an equivalent situation) be permitted to reach an income level of $1000 in excess of the earnings limitations proposed in this recommendation.

17. That if a category 2 student does not achieve an income of $3000 he may avail himself of the grant/loan scheme outlined in Recommendations 18 to 22.

18. That graduate students in category 3 have in a twelve-month period an amount of money comparable to those in category 2; that there be a loan/grant scheme providing a maximum payment of $2400 in twelve months; and that the upper limit from the loan/grant scheme and additional earnings be $3000 for single graduate students and $4500 for graduate students with dependent children or in an equivalent situation.

19. That some portion of the monies available to graduate students in category 3 be in the form of a repayable loan, and thus that a loan/grant scheme (similar to P.O.S.A.P.) be established for graduate students.

20. That the loan/grant scheme be such that approximately one-half of the maximum level of financial support available to a category 3 graduate student be in the form of a loan and the other half in the form of a grant.

21. That the graduate student in category 3 be eligible for an initial loan of $500 ($167 per term) and for additional monies in the form of a loan/grant in a 40/60 ratio to bring the monies available in a twelve-month period to the permitted limits ($3000 and $4500 -- see recommendation 18), but with the combination of loan and grant monies in no case to exceed $2400 in twelve months and $800 per term.

22. That interest on the repayable loan portion be charged from the first day of ceasing to be a full-time graduate student and that the interest rate be equal to the prime lending rate available at commercial banks.

23. That a foreign component of at least 10% be recognized as academically desirable in the graduate schools of Ontario.

24. That foreign students be eligible for all scholarships (NRC, MRC, Canada Council and POGF) available to Canadian citizens and landed immigrants in the graduate schools of Ontario up to approximately 15% of the number of awards.

25. That the foreign student support component be built into the NRC Scholarship and Bursary programs rather than into the research grants.

26. That not more than 15% of the OGF holders in a university be foreign students, and not more than 20% of the POGF in any one university graduate division or faculty be held by foreign students. A faculty with fewer than 10 graduate students would be an obvious case for exception.

27. That the loan/grant scheme for the support of students in category 3 not be available to foreign students.

28. That as a general principle, as at present, students in some programs leading to professional degrees not be eligible for scholarship and loan/grant support outlined in these recommendations.

29. That the recommendations of this report be reviewed from time to time by O.C.G.S. with a view to revision in the light of changes in levels of support by Canada Council and NRC or in competitive conditions, and that the possibility of introducing other programs not at present included in the OGF scheme be kept under review.